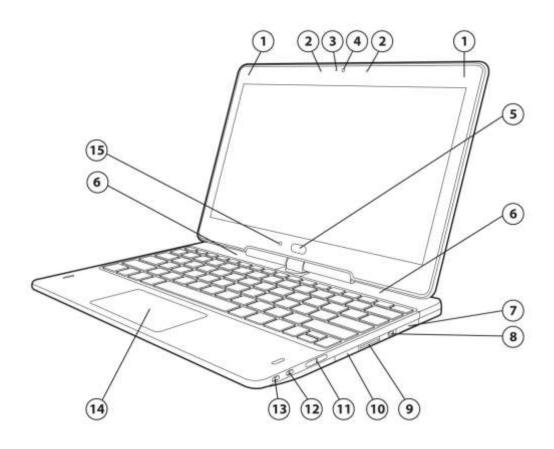
Overview

HP EliteBook Revolve 810 G2 Tablet PC

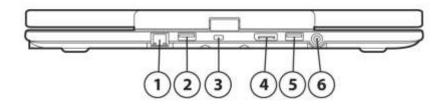


- 1. WLAN antennas
- 2. Dual-microphone array
- 3. Webcam LED
- 4. 720p HD Webcam
- 5. Home button
- 6. WWAN antennas
- 7. Side docking connector
- 8. Audio jack

Front, Right

- 9 MicroSD slot
- 10. Speaker
- 11. Volume up/down button
- 12. Rotation lock button
- 13. Power button
- 14. Clickpad image sensor
- 15. Ambient light sensor

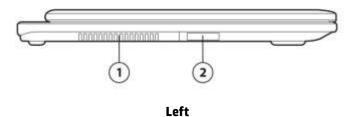
Overview



Rear

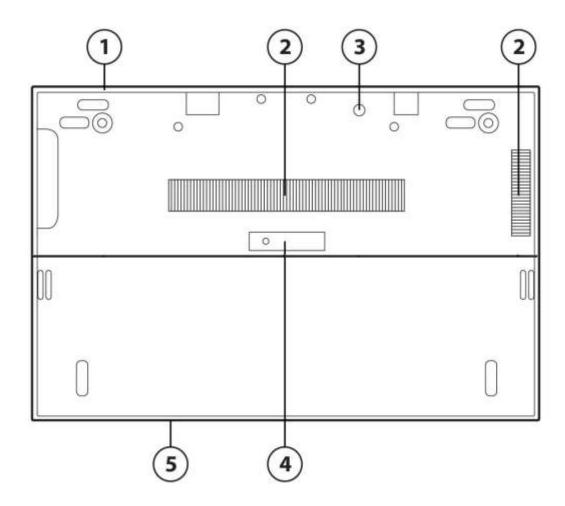
- 1. RJ-45 (Ethernet) jack
- 2. USB 3.0 port
- 3. Security lock slot

- . --
- 4. DisplayPort 1.2
- 5. USB 3.0 charging port
- 6. Power connector



- 1. Vent
- 2. Speaker

Overview



Bottom

- 1. Service cover
- 2. Vents
- 3. Near Field Communication (NFC) antenna

- 4. Battery bay cover release latch
- 5. Battery bay

Overview

At A Glance

- Windows 8.1 Pro 64, Windows 8.1 64, Windows 7 Professional 64 (available through downgrade rights from Windows 8.1
 Pro 64), Windows 7 Professional 64, Windows 7 Home Premium 64, or FreeDOS 2.0
- 11.6-inch diagonal LED-backlit, ultra-slim, HD UWVA display (1366 x 768) with capacitive multi-touch screen
- Industrial, business rugged HP DuraCase construction features a full magnesium alloy chassis, wear-resistant HP DuraFinish, and stainless steel hinges
- Full-sized backlit (optional), spill-resistant keyboard with bottom-case drain
- Clickpad image sensor
- Choice of 4th Generation Intel® Core™ i7, i5 Core with Turbo Boost Technology or 4th Generation Intel® Core™ i3 Core
- Intel vPro technology enables you to remotely monitor, diagnose, and repair PCs over the network, even if a system's OS is inoperable or it is powered off (vPro not available with Core i3-4010U or Core i5-4200U.)
- Choice of up to 256 GB M.2 Solid State Drive or 256 GB SED M.2 Solid State Drive
- Flexible wireless connectivity options:
 - o Integrated WWAN modules with GPS support
 - o Integrated Intel 802.11 (2x2) a/b/g/n ac, or a/b/g/n with Bluetooth 4.0 combo card
 - o Integrated Intel 802.11a/b/g/n (2x2) wireless LAN module
- 6-cell polymer long life battery (44 WHr)
- Integrated Intel HD 4400 Graphics
- Integrated 720p HD Webcam
- DTS Studio Sound with integrated stereo speakers and dual microphone array
- Security features including HP Client Security, Common Criteria Certified Discrete TPM 1.2 Embedded Security Chip, and security lock slot
- Separate launch buttons for easy access to the following features: Windows, power, rotation lock, volume up and down
- DisplayPort v1.2 for high resolution support
- Optional HP 2013 UltraSlim docking station
- Sensors include Gyroscope, Accelerometer, Compass, Ambient Light Sensor, Near Field Communication (NFC)
- microSD slot

NOTE: See important legal disclosures for all listed specs in their respective features sections.



Features

PRODUCT NAME

HP EliteBook Revolve 810 G2 Tablet

OPERATING SYSTEM

Preinstalled Windows 8.1 Pro 64*

Windows 8.1 64*

Windows 7 Professional 64 (available through downgrade rights from Windows 8.1 Pro 64)**

Windows 7 Professional 64***
Windows 7 Home Premium 64***

FreeDOS 2.0

Supported Windows 8.1 Enterprise 64*

Windows 7 Professional 32***
Windows 7 Enterprise 32***
Windows 7 Enterprise 64***
Windows 7 Ultimate 32***
Windows 7 Ultimate 64***
Windows 7 Home Premium 32***
Windows 7 Home Basic 32***
Windows 7 Home Basic 64***

PROCESSOR*

4th Generation Intel® Core™ i7-4600U with Intel HD Graphics 4400 (2.1 GHz, 4 MB L3 cache, 2 cores, 15 W)* Up to 3.3 GHz with Intel Turbo Boost Technology**

4th Generation Intel® Core™ i5-4300U with Intel HD Graphics 4400 (1.9 GHz, 3 MB L3 cache, 2 cores, 15 W)* Up to 2.9 GHz with Intel Turbo Boost Technology

4th Generation Intel® Core™ i5-4200U with Intel HD Graphics 4400 (1.6 GHz, 3 MB L3 cache, 2 cores, 15 W)* Up to 2.6 GHz with Intel Turbo Boost Technology**

4th Generation Intel® Core™ i3-4010U with Intel HD Graphics 4400 (1.7 GHz, 3 MB L3 cache, 2 cores, 15 W)*

* Multi-Core is designed to improve performance of certain software products. Not all customers or software applications will necessarily benefit from use of this technology. 64-bit computing on Intel® architecture requires a computer system with a processor, chipset, BIOS, operating system, device drivers, and applications enabled for Intel® 64 architecture. Processors will not operate (including 32-bit operation) without an Intel® 64 architecture-enabled BIOS. Performance will vary depending on your hardware and software configurations. Intel's numbering is not a measurement of higher performance.

** Intel® Turbo Boost technology requires a PC with a processor with Intel Turbo Boost capability. Intel Turbo Boost



^{*} Not all features are available in all editions of Windows 8.1. Systems may require upgraded and/or separately purchased hardware, drivers and/or software to take full advantage of Windows 8.1 functionality. See <u>microsoft.com/</u>

^{**} This system is preinstalled with Windows® 7 Pro software and also comes with a license and media for Windows 8 Pro software. You may only use one version of the Windows software at a time. Switching between versions will require you to uninstall one version and install the other version. You must back up all data (files, photos, etc.) before uninstalling and installing operating systems to avoid loss of your data

^{**} Systems may require upgraded and/or separately purchased hardware to take full advantage of Windows 7 functionality. See microsoft.com/windows/windows-7/ for details.

Features

performance varies depending on hardware, software and overall system configuration. See intel.com/technology/turboboost for more information.

NOTE: Processor speed denotes maximum performance mode; processors will run at lower speeds in battery optimization mode.

CHIPSET

Mobile Intel® QM87 (vPro support available with Core i7-4600 or Core i5-4300)

INTEL CORE IS WITH VPRO/CORE I7 WITH VPRO TECHNOLOGY CAPABLE

Intel Core i5 with vPro and Core i7 with vPro technology is a selectable feature that is available on units configured with select processors, an Intel Centrino® Advanced-N or Ultimate-N WLAN module and a preinstalled Windows operating system. It provides advances in remote manageability, security, energy efficient performance, and wireless connectivity. Intel Active Management Technology 9.0 (iAMT) offers built-in manageability and proactive security for networked notebook PCs, even when they are powered off* or when the operating system is inoperable. It can help identify threats before they reach the network, isolate infected systems, and update PCs regardless of their power state.

*Requires a Windows operating system, network hardware and software, connection with a power source, and a direct (non-VPN) corporate network connection which is either cable or wireless LAN.

NOTE: Some functionality of this technology, such as Intel® Active management technology and Intel Virtualization technology, requires additional 3rd party software in order to run. Availability of future "virtual appliances" applications for Intel vPro technology is dependent on 3rd party software providers. Microsoft Windows required. For hard drives, GB = 1 billion bytes. Actual formatted capacity is less. Up to 30 GB for Windows 8 is reserved for system recovery software.

GRAPHICS

Integrated:

UMA: Intel HD Graphics 4400

DISPLAY

Internal

11.6-inch diagonal LED-backlit, anti-glare, HD+ AG UWVA Touchpanel (1366 x 768)

- Ultra- Wide-viewing angle
- LVDS low voltage differential signaling
- Capacitive multitouch screen with optional digitizer
- Tough, durable Corning Gorilla Glass 3

External

Up to 32-bit per pixel color depth

DisplayPort v1.2

Supports resolutions up to 2560 x 1600, 30-bit color depth at 60 Hz, and full HD (1920 x 1080) monitors, 24-bit color depth



Features

at 120 Hz

Number of Supported Displays

Number of Displays with 2013 UltraSlim Docking Station	UMA	Discrete
EliteBook Revolve 810 G2	3	n/a

^{*} HD content required to view HD images.

NOTE: Resolutions are dependent upon monitor capability, and resolution and color depth settings.

STORAGE AND DRIVES

Solid State Drive

128/180/256 GB M.2 Solid State Drives

256 GB SED M.2 Solid State Drive

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. Actual formatted capacity is less. Up to 16 GB (for Windows 7) and 30 GB (for Windows 8.1) of system disk is reserved for the system recovery software

MEMORY

Standard

DDR3L PC3-12800 SDRAM (1600 MHz)

One SODIMM slot supporting dual-channel memory plus 4 GB soldered down

4 GB and 8 GB SODIMMs

Maximum

Upgradeable to 12288 MB with optional 8192 MB SODIMM in slot 1 and 4096 MB soldered down

Dual-channel

Maximized dual-channel performance requires SODIMMs of the same size and speed in both memory slots.

NOTE: Maximum memory capacities assume Windows 64-bit operating systems. With Windows 32-bit operating systems, memory above 3 GB may not all be available due to system resource requirements.

NOTE: Due to the non-industry standard nature of some third-party memory modules, we recommend HP branded memory to ensure compatibility. If you mix memory speeds, the system will perform at the lower memory speed.

NETWORKING/COMMUNICATIONS

Wireless

Support for a broad range of secure, integrated wireless LAN and wireless WAN options featuring support for the latest industry standards. Broadband Wireless (WWAN) requires a Windows operating system and is available in select countries as a standard, factory configurable feature only. Integrated Bluetooth is also available as both a factory configurable and aftermarket option and can be combined with any of the supported wireless LAN and wireless WAN options.

Broadband Wireless (WWAN)

HP hs3110 HSPA+ Mobile Broadband*
HP lt4111 LTE/EV-DO/HSPA+ Mobile Broadband Module*,** (US)



Features

Wireless LAN (WLAN)

Intel Dual Band Wireless-AC 7260 802.11 ac (2x2) WiFi + BT 4.0 combo***, ****
Intel Dual Band Wireless-N 7260AN 802.11 a/b/g/n (2x2) WiFi + BT 4.0 combo***
Intel Dual Band Wireless-N 7260NB 802.11 a/b/g/n (2x2) WiFi***

- * WWAN is an optional feature sold separately or as an add-on feature. WWAN connection requires wireless data service contract, network support, and is not available in all areas. Contact service provider to determine the coverage area and availability. Connection speeds will vary due to location, environment, network conditions, and other factors.
- ** 4G LTE not available on all products, in all regions and only available on products featuring Intel processors.
- ***WLAN is an optional feature. Wireless access point and Internet service is required and is not included. Availability of public wireless access points limited.
- **** The specifications for the 802.11ac WLAN are draft specifications and are not final. If the final specifications differ from the draft specifications, it may affect the ability of the notebook to communicate with other 802.11ac WLAN devices.

Communications

Integrated Intel 82579LM Gigabit* Network Connection (vPro configurations)

* The term "10/100/1000" or "Gigabit" Ethernet indicates compatibility with IEEE standard 802.3ab for Gigabit Ethernet, and does not connote actual operating speed of 1 Gb/s. For high-speed transmission, connection to a Gigabit Ethernet server and network infrastructure is required.

AUDIO/MULTIMEDIA

Audio

DTS Studio Sound Integrated stereo speakers Integrated microphone (dual-microphone array) Buttons for volume up and down Headphone/microphone combo jack

Webcam

Integrated 720p HD webcam

- HD format (widescreen)
- Supports videoconferencing and still image capture
- High quality fixed focus lens
- Video capture at various resolutions up to 1280x720 resolution (720p) and up to 30fps
- M-JPEG compression supports higher frame rates for video capture and videoconferencing
- Improved low light sensitivity
- · Improved dynamic range

KEYBOARDS/POINTING DEVICES/BUTTONS & FUNCTION KEYS

Keyboard

The HP backlit, spill-resistant keyboard is designed using a thin layer of Mylar film under the keyboard and a drain system that funnels fluid through a hole in the bottom of the notebook. This minimizes the risk of damage to sensitive components underneath. The 101/102-key compatible keyboard features an industry standard, full-pitch key layout with desktop



Features

keyboard features, such as the isolated inverted-T cursor control keys, editing keys, both left and right control and alt keys, and 12 function keys. U.S. and International key layouts are available. Other features include an integrated numeric keypad, hotkeys for instant access to power conservation, brightness, and other features, 19 mm x 19 mm key pitch (center-to-center spacing), 2.0 mm stroke, and comfort-dished keycaps.

Pointing Devices

Clickpad image sensor

Buttons and Function Keys

Function keys are:

- F1 Ambient Light Sensor
- F2 Battery Gauge
- F3 Sleep
- F4 Display Switching
- F5 Speaker Mute
- F6 Volume Down
- F7 Volume Up
- F8 Mic mute
- F9 Brightness Down
- F10 Brightness Up
- F11 Backlit keyboard
- F12 WiFi toggle

SENSORS

Accelerometer

Compass

Ambient Light Sensor

Near Field Communication (NFC)

SOFTWARE AND SECURITY

Preinstalled Software with Windows Operating System

Security

Absolute Data Protect

Computrace (removed from UI on activation)¹

Device Access Manager with Just In Time Authentication

DigitalPersona Fingerprint Driver

Drive Encryption²

HP Client Security (incl. Cred Mgr and Password Mgr)

HP Trust Circles Standard³

Microsoft Defender

Microsoft Security Essentials⁴

Privacy Manager (Web only)

Validity Fingerprint Driver

BIOS Features



Features

Absolute Persistence Module (for all Absolute products) 1

HP Sure Start⁵

HP Automatic Drive Lock

HP BIOS Protection⁶ (Follow NIST 800-147, 155 Guidelines)

HP Disk Sanitizer⁷ (Not for SSD)

HP DriveLock

HP SpareKey⁸

Hybrid Boot

Master Record Security (backup/restore)

Measured Boot

Power On Authentication

Pre-Boot Security

Secure Boot

Secure Erase⁹ (SSD & HDD)

Update via Network

HP Value Add

HP Ceement

Digital ENERGY STAR® Logo W8

Getting Started with Windows 8

HP 3D DriveGuard

HP ePrint Driver¹⁰

HP Firmware & Driver Installer

HP Hotkey Support

HP Manageability

HP PageLift App

HP PageLift Desktop App

HP Performance Advisor

HP Quick Start

HP Recovery Manager

HP Registration App

HP Remote Graphics

HP Setup

HP Software Setup

HP Support Assistant

HP Recovery Disc Creator (HPRDC)

HP WallPaper

Internet Explorer 9

Internet Explorer 10

IE Home

System Default Settings for Win8

UEFI System Diagnostics W8

Wireless Button Driver

3rd Party

Adobe® Flash Player (Commercial)

Amazon Kindle App

PDF Complete, Corporate Edition

Box.Net (UK only)



Features

Box 50GB CMIT Cloud Offer BTB Host and ISP Stub BTB Host End Block Bing Search for IE9 Bing Search for IE10 Netflix App Skype Desktop App¹¹ Skype App¹¹

Microsoft Products

Office Home & Business 2013 Office Professional 2013 Lync Optimized¹²

¹ The Absolute Persistence agent is shipped turned off, and is activated with customer purchase of a subscription. Service may be limited. Check with Absolute for availability outside the U.S. The optional subscription service of Absolute Recovery Guarantee is a limited warranty. Certain conditions apply. For full details visit:

<u>absolute.com/company/legal/agreements/computrace-agreement</u>. If Data Delete is utilized, the Recovery Guarantee payment is null and void. In order to use the Data Delete service, customers must first sign a Pre-Authorization Agreement and either create a PIN or purchase one or more RSA SecurID tokens from Absolute Software

² Requires Windows. Data is protected prior to Drive Encryption login. Turning the PC off or into hibernate logs out of Drive Encryption and prevents data access. Drive encryption planned to be available in October 2013.

³ HP Trust Circles Standard, when included, allows up to 5 Trust Circles with up to 5 contacts in each Trust Circle. Optional Trust Circles Professional required for unrestricted number of Trust Circles and members contacts. Trust Circles Reader is available to allow a contact to participate in an invited Trust Circle. Requires Windows.

⁴Opt in and internet connection required for updates.

⁵ HP Sure Start is available only on EliteBook 800 and Workstation ZBook series products. HP Tools partition with HP BIOS required for automatic recovery.

⁶ HP Tools partition with an HP BIOS required for automatic recovery.

⁷ For the use cases outlined in the DOD 5220.22-M Supplement. Does not support Solid State Drives (SSDs). Initial setup required. Web history deleted only in Internet Explorer and Firefox browsers and must be user enabled.

⁸ Requires initial user set up.

⁹ For the methods outlined in the National Institute of Standards and Technology Special Publication 800-88.

¹⁰Requires an Internet connection to HP web-enabled printer and HP ePrint account registration (for a list of eligible printers, supported documents and image types and other HP ePrint details, see hp.com/qo/eprintcenter). Requires optional broadband module. Broadband use requires separately purchased service contract. Check with service provider for coverage and availability in your area. Separately purchased data plans or usage fees may apply. Print times and connection speeds may vary.

¹¹ Requires an Internet connection to HP web-enabled printer and HP ePrint account registration (for a list of eligible printers, supported documents and image types and other HP ePrint details, see hp.com/qo/eprintcenter). Requires optional broadband module. Broadband use requires separately purchased service contract. Check with service provider for coverage and availability in your area. Separately purchased data plans or usage fees may apply. Print times and connection speeds may vary.

¹²Lync software is sold separately. Requires internet access.

Security

Standard

Common Criteria EAL4+ Augmented Certified Discrete TPM 1.2 Embedded Security Chip Security lock slot



Features

HP Sure Start
HP BIOS (BIOS Protection)
Secure Erase¹
Computrace Persistence²
DriveLock and Automatic DriveLock
Preboot Security
Master Boot Record recovery (Windows 7 only)
HP Client Security Software:

- Drive Encryption
- Credential Manager
- Password Manager
- Absolute Data Protect (Windows 8 and 8.1 only)⁶
- Computrace (Windows 7 only)⁷
- Face Recognition⁶
- One Step Logon
- SpareKey³

Device Access Manager with Just In Time Authentication Embedded Security (Windows 7 only) Privacy Manager (Windows 7 only) Microsoft Security Essentials (Windows 7 only)⁴ DigitalPass (Windows 7 only) Central Management capable⁵

Optional

HP Combo Lock

<u>absolute.com/company/legal/agreements/computrace-agreement</u>. If Data Delete is utilized, the Recovery Guarantee payment is null and void. In order to use the Data Delete service, customers must first sign a Pre-Authorization Agreement and either create a PIN or purchase one or more RSA SecurID tokens from Absolute Software.

⁷ HP Revolve with Windows 7 includes the Computrace agent, shipped turned off, and is activated with customer purchase of a subscription. Service may be limited. Check with Absolute for availability outside the U.S. The optional subscription service of Absolute Recovery Guarantee is a limited warranty. Certain conditions apply. For full details visit: absolute.com/company/legal/agreements/computrace-agreement. If Data Delete is utilized, the Recovery Guarantee



¹ For the methods outlined in the National Institute of Standards and Technology Special Publication 800-88.

² Computrace agent is shipped turned off, and must be activated by customers when they purchase a subscription. Subscriptions can be purchased for terms ranging for multiple years. Service is limited, check with Absolute for availability outside the U.S

³ Requires initial user setup.

⁴ Opt-in and Internet connection required for updates

⁵ In order to deploy and receive updated policies, the client needs to be connected to the network server and requires separately purchased DigitalPersona Pro software. System access may not prevent users from logging into the system on the first attempt if policy updates haven't yet been received and applied.

⁶ HP Revolve with Windows 8 and 8.1 includes includes a 4 year license of Absolute Data Protect to locate your device, lock and prevent unauthorized access and remotely delete personal data. See <u>absolute.com/landing/2012/computrace-hp</u> for complete details. Absolute Data Protect agent is shipped turned off, and must be activated by customers. Service may be limited, check with Absolute for availability outside the U.S. The optional subscription service of Absolute Recovery Guarantee is a limited warranty. Certain conditions apply. For full details visit:

Features

payment is null and void. In order to use the Data Delete service, customers must first sign a Pre-Authorization Agreement and either create a PIN or purchase one or more RSA SecurID tokens from Absolute Software.

For more information on HP security solutions refer to: hp.com/go/security.

Management

LANDesk Management Suite (optional)1,2

LANDesk Security Suite(optional)^{1, 2}

HP System Software Manager (available at no charge as a download from the web)

HP Softpaq Download Manager (available at no charge as a download from the web)

POWER

Power Supply

External HP 45W Slim Smart AC Adapter

Power cord is configurable; either 3.2 feet or 6 feet (1.0 or 1.8 meter)

Primary Battery

HP 6-cell polymer long life (44WHr)

Battery Life

HP 6-cell polymer long life battery (44WHr)

Up to TBD Hours*,**

System Standby Time

Up to 137 hours

Power Conservation

Supports enhanced Intel SpeedStep technology (allows Battery Optimized Mode, Maximum Performance Mode, or Automatic mode)

Intel Display Power Saving technology

Hibernation

Standby

ACPI compliance

- * Windows 7 battery life will vary depending on various factors including product model, configuration, loaded applications, features, use, wireless functionality, and power management settings. The maximum capacity of the battery will naturally decrease with time and usage. See <u>bapco.com</u> for additional details.
- ** Windows 8 testing conducted by HP consisting of full battery discharge while running a series of productivity scripts against the following applications (which may or may not be included with your particular product): Adobe *AcrobatReader 7.0, Adobe *Illustrator* CS2, Adobe *Photoshop* CS2, Apple *Quicktime 7.1, Intervideo *WinDVD* 8, Macromedia *Flash 8, Microsoft* Office* 2003 Pro, Microsoft* Project 2003, and Winzip* 10.0. Prior to testing, the system was fully charged, display brightness was set at 60 nits, wireless was turned off, and auto dim, suspend, hibernate and all other non-essential operation programs, utilities, and services to operation and battery testing were disabled. Battery life will vary depending on the product model, configuration, loaded applications, features, use, wireless functionality and power management settings.



¹ Sold separately or as an optional feature.

² LANDesk software is sold separately. Managed devices must be connected to the management server. Location based functionality requires active LANdesk maintenance service. Wipe functionality performs a "Windows 8 Reset" and requires Windows 8. Lock performs a Windows "Lock Computer."

Features

The maximum capacity of the battery will naturally decrease with time and usage.

ENVIRONMENTAL

- US ENERGY STAR ®
- IT ECO declaration
- EPEAT® Gold registered in the U.S. (with Microsoft OS). EPEAT status varies by country- please see epeat.net for registration status in your country.
- US Federal Energy Management Program (FEMP)

WEIGHTS & DIMENSIONS

Weight

Starting at 3.08 lb (1.40 kg) (weight will vary by configuration)

Dimensions ($w \times d \times h$)

8.34 x 11.22 x 0.80 in (at front) / 212 x 285 x 22.2 mm (at front)

NOTE: Height varies depending upon where on the notebook the measurement is made. Weight varies by configuration and components. Weight includes 6-cell battery, lightest SSD, and 1 SODIMM.

PORTS/SLOTS

Ports

DisplayPort – One (v1.2)
Stereo headphone/microphone combo jack – One
Power Connector – One
Side Docking Connector – One
RJ-45 (Ethernet) – One
USB 3.0 – One
USB 3.0 Charging – One

Digital Media Slots

microSD Media Reader Slot - supports SD, SDHC, SDXC

SERVICE AND SUPPORT

1 and 3 year limited warranty options available. 3-year limited warranty on battery. Optional HP Care Pack Services are extended service contracts which go beyond your standard warranties. For more details visit: https://doi.org/10.1007/nj.cpc

NOTE: Certain restrictions and exclusions apply. Consult the HP Customer Support Center for details. http://h20000.www2.hp.com/bizsupport/TechSupport/ProductRoot.jsp



Technical Specifications

SYSTEM UNIT

Stand-Alone Power

Requirements (AC Power) Voltage Average Operating Power 10.2 W **Max Operating Power** < 45 W

32° to 95° F (0° to 35° C) (not writing optical) **Temperature Operating** 41° to 95° F (5° to 35° C) (writing optical)

> **Non-operating** -4° to 140° F (-20° to 60° C)

110/220 V

Relative Humidity Operating 10% to 90%, non-condensing

> Non-operating 5% to 95%, 101.6° F (38.7° C) maximum wet bulb temperature

Shock Operating 40 G, 2 ms, half-sine

Nominal Operating

Non-operating 200 G, 2 ms, half-sine

Random Vibration Operating 0.75 grms Non-operating 1.50 grms

Altitude (unpressurized) **Operating** -50 to 10,000 ft (-15.24 to 3,048 m)

> Non-operating -50 to 40,000 ft (-15.24 to 12,192 m)

Planned Industry Standard Certifications

UL Yes CSA Yes **FCC Compliance** Yes

ENERGY STAR® Select models*

EPEAT Gold** **ICES** Yes Australia / Yes

NZ A-Tick Compliance

CCC Yes Japan VCCI Compliance Yes KC Yes **BSMI** Yes **CE Marking Compliance** Yes **BNCI or BELUS** Yes CIT Yes GOST Yes Saudi Arabian Yes Compliance (ICCP)

SABS Yes **UKRSERTCOMPUTER** Yes

^{**} EPEAT® Gold registered in the U.S. See epeat.net for registration status by country.



^{*} Configurations of the HP EliteBook Revolve 810 G2 that are ENERGY STAR qualified are identified as HP EliteBook Revolve 810 G2 ENERGY STAR on HP websites and on energystar.gov.

Technical Specifications

For accessibility information on HP products, please visit: https://example.com/accessibility.

DISPLAYS

11.6-inch diagonal LED HD (1366 x 768) **Active Area** 9.88 x 5.67 in (25.61 x 14.40 cm) **Dimensions** (W x H) 11.53 x 6.49 in (29.3 x 16.5 cm)

Diagonal Size11.6 in (29.46 cm)Contrast Ratio300:1 (typical)

Refresh Rate 60 Hz

Brightness 400 nit (typical)

Pixel ResolutionFormat1366 x 768ConfigurationRGB Stripe

Backlight LED

Viewing Angle 40/40/15/30 (Left/Right/Down/Up) (typical)

STORAGE AND DRIVES

Internal Storage

128 GB* M.2 Solid State Drive

Drive Weight 10 grams **Capacity** 128 GB

 Height
 0.091 in (2.3 mm)

 Width
 0.87 in (22 mm)

 Interface
 SATA 3 (6 Gb/s)

Performance Maximum Sequential Read Maximum Sequential Write

Up to 500 MB/s Up to 250 MB/s

Logical Blocks 250,069,680

Operating Temperature 32° to 158°F (0° to 70°C) [case temp]

Features ATA Security; ATA-8; SATA 3.0; DIPM; TRIM

180 GB* M.2 Solid State

Drive

Drive Weight 10 grams
Capacity 180 GB

 Height
 0.091 in (2.3 mm)

 Width
 0.87 in (22 mm)

 Interface
 SATA Gen 3 (6 Gb/s)

Performance Maximum Sequential Read Maximum Sequential Write

Up to 520 MB/s Up to 490 MB/s

Logical Blocks 351,651,888

Operating Temperature 32° to 158°F (0° to 70°C) [case temp]

Features ATA Security; ATA-8, SATA 3.0; DIPM; TRIM



Technical Specifications

256 GB* M.2 Solid State Drive

Drive Weight 10 grams **Capacity** 256 GB

 Height
 0.091 in (2.3 mm)

 Width
 0.87 in (22 mm)

 Interface
 SATA Gen 3 (6 Gb/s)

Performance Maximum Sequential Read Maximum Sequential Write

Up to 500 MB/s Up to 350 MB/s

Logical Blocks 500,118,192

Operating Temperature 32° to 158°F (0° to 70°C) [case temp] **Features** ATA Security; ATA-8, SATA 3.0; DIPM; TRIM

NETWORKING/COMMUNICATIONS

Intel® 82579LM Gigabit Network Connection **Ethernet Features**

10 Mbit/s operation (10BASE-T; IEEE 802.3i; IEEE 802.3 clauses 13-14)
100 10 Mbit/s operation (10BASE-T; IEEE 802.3i; IEEE 802.3 clauses 13-14)
100 Mbit/s operation (100BASE-TX; IEEE 802.3u; IEEE 802.3 clauses 21-30)
1000 Mbti/s operation (1000BASE-T; IEEE 802.3ab; IEEE 8023. Clauses 40)

Auto-Negotiation (Automatic Speed Selection)

Full Duplex Operation at all Speeds, Half Duplex operation at 10 and 100

Mbit/s

IEEE 802.1p QoS (Quality of Service) Support

IEEE 802.1q VLAN support

IEEE 802.3x Flow Control (IEEE 802.3 clauses 31-32; configurable)

IEEE 802.3az EEE(Energy Efficient Ethernet)

Jumbo Frame 9K

Auto MDI/MDIX Crossover cable detection

Power ACPI compliant - multiple power modes

ManagementEnergy Detect Low Power Mode(Green Ethernet)PerformanceTCP/IP/UDP Checksum Offload (configurable)

Features Protocol Offload(ARP & NS)

Large send offload and Giant send offload

Receiving Side Scaling MACSec Offload (802.3ae)

Intel vPro iSCSI Boot

Manageability Wake-on-LAN from standby and hibernation (Magic Packet and Microsoft

Wake-Up Frame); Wake-on-LAN from off (Magic Packet only)

PXE 2.1 Remote Boot

Statistics Gathering (SNMP MIB II, Ethernet-like MIB, Ethernet MIB (802.3x,

clause 30))

Comprehensive diagnostic and configuration software suite

Virtual Cable Doctor for Ethernet cable status



^{*} For solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 16 GB (for Windows 7) and 30 GB (for Windows 8.1) of system disk is reserved for the system recovery software.

Technical Specifications

Interface PCI Express 1.1 x1 to fully support ASPM LOs/L1 and CLKREQ.

NOTE: Intel 82579 PCIe interface is not PCIe compliant. It operates at half

of PCIe specification V1.1 (2.5GT/S) speed.

NIC Device Driver Name Intel 82579LM/82579V Ethernet Network Connection

HP hs3110/3114 HSPA+ Technology/Operating

Mobile Broadband Module bands

Modes: WCDMA/HSDPA/HSUPA/HSPA+/AWS/GSM/EDGE/GPRS

Penta-band WCDMA/HSDPA/HSUPA/HSPA+/AWS:

850/900/1900/2100/AWS MHz

GSM/GPRS/EDGE: 850/900/1800/1900 MHz

Wireless protocol

standards

GSM/GPRS/EDGE: Class B, Multi-slot class 33, coding schemes CS1 - CS4

and MSC1 - MSC9.

UMTS/WCDMA: Release 99 and Release 7

Advanced Receiver Type 3i

GPS GPS Standalone, A-GPS: L1 (Internet- and Network assisted)

Wireless parametric

standards

Complies with 3GPP specifications

Maximum data rates GPRS/EDGE: Multi-slot Class 33, Class B

WCDMA PS: UL (384 kbps) / DL (384 kbps) UL/DL HSPA: UL (5.76 Mbps)/ DL (7.2 Mbps) UL/DL HSPA+: UL (5.76 Mbps)/ DL (21Mbps)

Maximum output power

WCDMA/HSPA/HSPA+ 2100/1900/900/850/AWS MHz:

+24dBm (Power Class 3)

GPRS 1900/1800 MHz: +30dBm (Power Class 1) GPRS 900/850 MHz: +33dBm (Power Class 4) EDGE 1900/1800 MHz: +26dBm (Power Class E2) EDGE 900/850 MHz: +27dBm (Power Class E2)

Maximum power

consumption

2500mA (peak); 600mA (average)

Power consumption,

sleep mode

3.6 mA

Power management USB selective suspend, Connected Standby

Integrated notebook wireless button

Antenna type Dual high efficiency 5 band antennae with spatial diversity, mounted in the

display enclosure

Form Factor M.2 Socket 2, USB 2.0 interface high speed

Weight <6 g

Dimensions 2.01 x 1.18 x 0.18 in (42 x 30 x 2.3 mm)

(Length x Width x

Thickness)

SIM card supply voltage 1.8 V/3.0 V UICC (SIM/UICC/USIM)

Voltage, Operating 3.135V~4.4V (3.3 V recommended)

Temperature, operating 14° to 131° F (-10° to 55° C) (Normal operation)

-4° to 158° F (-20° to 70° C) (Extended operation)

Technical Specifications

Temperature, storage -40° to 185° F (-40° to 85° C)

Humidity 5% to 95%

Configuration utilities HP Connection Manager

LED activity LED Off - Radio Off; Solid LED On - Radio On

HP lt4111 LTE/EV-DO/HSPA+ 4G WWAN* Technology/Operating

Bands

LTE FDD all bands with diversity: 1900 MHz (Band II)¹, 1700/2100MHz (Band

IV (AWS), 850 MHz (Band V), 700MHz (Band XIII), 700MHZ (Band XVII),

1900MHz G Block (Band XXV)

WCDMA/HSDPA/HSUPA/HSPA+: all bands with diversity: 2100 MHz (Band I), 1900 MHz (Band II), AWS 1700/2100MHz (Band IV), 850 MHz (Band V), 800

MHz (Band VIII)

GSM/GPRS/EDGE: 1900 MHz, 1800 MHz, 850 MHz, 900 MHz

CDMA: Cellular 800MHz (BCO), PCS 1900MHz (BC1)

Wireless Protocol Standards 3GPP Release 8 LTE Specification

WCDMA R99, 3GPP Release 5, 6 and 7 UMTS Specification

EVDO Release O and Release A

Wireless Parametric

Standards

Complies with 3GPP specifications Release 8 for LTE

Maximum Data Rates LTE (Category 3): 100 Mbps (Download), 50Mbps (Upload)

DC-HSPA+: 42 Mbps (Download), 5.76 Mbps (Upload) HSPA+: 21.6 Mbps (Download), 5.76 Mbps (Upload) EDGE: 236.8 kbps (Download), 236.8 kbps (Upload) GPRS: 85.6 kbps (Download), 85.6 kbps (Upload)

GPS Standalone GPS, A-GPS, GPS XTRA

GPS Bands 1575.42 MHz (± 1.023 MHz), GLONASS 1596-1607MHz

Maximum Output Power

LTE: +23 dBm (+/- 1 dBm) WCDMA: +23 dBm (+/- 1 dBm)

GSM850/900, GMSK: +32dBm (+/- 1dBm) GSM850/900, 8PSK: +27dBm (+/- 1dBm)

DCS1800 / PCS 1900, GMSK: +29dBm (+/- 1dBm) DCS1800 / PCS 1900, 8PSK: +26dBm (+/- 1dBm)

CDMA: +24dBm (+/- 1dBm)

Maximum Power Consumption

LTE: 1,200 mA (peak); <900 mA (average) WCDMA: 1,100 mA (peak); <800 mA (average) EGPRS: 2,500 mA (peak); <700 mA (average)

Power Consumption,

Sleep Mode

2 mA

Power Management

USB selective suspend, Integrated notebook wireless button
Dual high efficiency multi-band antennae with spatial diversity

Form Factor

M.2, 3042-S3 Key B

Weight

Antenna Type

6 q

Dimensions (Length x Width x Thickness)

42 mm × 30 mm × 2.3 mm

Technical Specifications

Voltage, Operating 3.135 V to 4.4 V (3.3 V +1.1V/-0.165V)

Temperature, operating -13° to 140° F (-25° to 60° C)

(from TIA/EIA/IS-98-D)

Temperature, non--40° to 185° F (-40° to 85° C)

operating, 96 hours (from MIL-STD 202 Method 108)

Humidity, Non-operating 95% relative humidity for 48 hours @ 185° F (85° C) (non-condensing)

LED Activity LED Off - Radio Off; Solid LED On - Radio On

Intel Dual Band Wireless- Wireless LAN Standards N 7260AN 802.11 a/b/q/n (2x2) WiFi + Bluetooth 4.0 Combo Adaptor*

IEEE 802.11a IEEE 802.11b IEEE 802.11q

IEEE 802.11n

Interoperability Wi-Fi certified

Frequency Band 802.11b/q/n 2.402 - 2.482 GHz

> 802.11a/n 4.9 - 4.95 GHz (Japan)

> > 5.15 - 5.25 GHz 5.25 - 5.35 GHz 5.47 - 5.725 GHz 5.825 - 5.850 GHz

Antenna Structure 2 transmit; 2 receive (2x2)

Data Rates 802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps

802.11b: 1, 2, 5.5, 11 Mbps

802.11q: 6, 9, 12, 18, 24, 36, 48, 54 Mbps

802.11n: card will support rates for NSS=1 and NSS=2 for RX and TX for 20 and 40 MHz channels. Short and long guard interval shall be supported.

Modulation Direct Sequence Spread Spectrum

CCK, BPSK, QPSK, 16-QAM, 64-QAM

Security¹ IEEE and WiFi compliant 64 / 128 bit WEP encryption for a/b/g

mode only

AES-CCMP: 128 bit in hardware

802.1x authentication

WPA, WPA2: 802.1x. WPA-PSK, WPA2-PSK, TKIP, and AES.

WPA2 certification

IEEE 802.11i

Cisco Certified Extensions, all versions through CCX4 and CCX Lite

WAPI

Sub-channels Multinational support with frequency bands and channels compliant to

local regulations.



¹ 1900 MHz (Band II) and 850 MHz (Band V) not supported at launch but support planned in a future firmware update.

^{* 4}G LTE not available on all products, in all regions and only available on products featuring Intel processors. WWAN use requires separately purchased service contract. Check with service provider for coverage and availability in your area. Connection speeds will vary due to location, environment, network conditions, and other factors.

Technical Specifications

Network Architecture Ad-hoc (Peer to Peer)

Models Infrastructure (Access Point Required)

Roaming IEEE 802.11 compliant roaming between band Access Points

Output Power² • 2.4G: +13.5dBm minimum

• 5G: +12dBm minimum

Power Consumption Transmit: 2.0 Watts

Receive: 1.6 Watts

Idle mode³: 250 mW (WLAN Associated)
Idle mode: 100 mW (WLAN unassociated)

Radio off: 75 mW

Power Management ACPI and PCI Express compliant power management

802.11 compliant power saving mode

Receiver Sensitivity⁴ 802.11g:-90 dBm (6 Mbps), -89 dBm (9 Mbps), -87 dBm (12 Mbps), -85 dBm

(18 Mbps), -82 dBm (24 Mbps), -79 dBm (36 Mbps), -76 dBm (48 Mbps), -74

dBm (54 Mbps)

802.11b:-95 dBm (1 Mbps), -93 dBm (2 Mbps), -91 dBm (5.5 Mbps), -88

dBm (11 Mbps)

802.11g:-90 dBm (6 Mbps), -89 dBm (9 Mbps), -87 dBm (12 Mbps), -85 dBm (18 Mbps), -82 dBm (24 Mbps), -79 dBm (36 Mbps), -76 dBm (48 Mbps), -74

dBm (54 Mbps)

802.11n:-69 dBm (150 Mbps), -66 dBm (300 Mbps)

Antenna Connections 2 U.FL type connectors (output impedance of 50 \pm 2 ohms)

Form Factor PCI-Express Half-MiniCard

Dimensions 0.12 x 1.06 x 1.18 in (3.1 x 26.8 x 30.0 mm)

Weight 3.1g

Operating Voltage 3.3v +/- 9%

Temperature Operating 14° to 158° F (-10° to 70° C)

Non-operating -40° to 176° F (-40° to 80° C)

Humidity Operating 10% to 90% (non-condensing)

Non-operating 5% to 95% (non-condensing)

Altitude Operating 0 to 10,000 ft (3,048 m)

Non-operating 0 to 50,000 ft (15,240 m)

LED Activity LED Off - Radio OFF; Solid LED On - Radio ON

1. Check latest software/driver release for updates on supported security features.

2. Maximum output power may vary by country according to local regulations.

3. In Power Save Polling mode and on battery power.

4. Receiver sensitivity is measured at a packet error rate of 8% for 802.11b (CCK modulation) and a packet error rate of 10% for 802.11a/g (OFDM modulation).

5. WLAN supplier's client utility is required for Cisco Compatible Extensions support with Microsoft Windows XP. WLAN may also be compatible with certain third-party software supplicants. WLAN supplier IHV extensions required for Cisco Compatible Extensions support for Microsoft Windows



Technical Specifications

Vista.

HP Integrated Module with Bluetooth 4.0+EDR Wireless Technology

Bluetooth Specification 4.0+EDR Compliant

Dimensions 1.18 x 0.26 x 0.13 in (30 x 6.5 x 3.25 mm)

Frequency Band 2402 to 2480 MHz

Number of Available

Channels

79 (1 MHz) available channels

Data Rates and 3 Mbps data rate; throughput up to 2.17 Mbps

Throughput Synchronous Connection Oriented links up to 3, 64 kbps, voice channels

Asynchronous Connection Less links 2178.1 kbps/177.1 kbps asymmetric

or 1306.9 kbps symmetric

Transmit Power -1.5 dBm to 4 dBm (Bluetooth Class II)

Receiver Sensitivity Better than -20 dBM at 0.1 % raw bit error rate

Power Consumption Peak (Tx) 264 mW

Peak (Rx) 231 mW Sleep <1 mW

Antenna Internally integrated within module

Range Up to 33 ft (10 m)
Electrical Interface USB 2.0 compliant

Microsoft Windows Plug and Play compliant

Bluetooth Software

Supported

Broadcom Bluetooth for Windows

Microsoft Windows Bluetooth Software

Link Topology Point to Point, Multipoint Pico Nets up to 7 slaves **Security** Full support of Bluetooth Security Provisions

Power Management Microsoft Windows ACPI, and USB Bus Support

Self configurable to optimize power conservation in all operating modes,

including Standby, Hold, Park, and Sniff

Certifications All necessary regulatory approvals for supported countries, including:

FCC (47 CFR) Part 15C, Section 15.247 & 15.249

ETS 300 328, ETS 300 826 Low Voltage Directive IEC950

UL, CSA, and CE Mark

Bluetooth Profiles
Supported

Serial Port Profile (SPP)1

Service Discovery Application Profile (SDAP)

Dial-Up Networking (DUN)^{1,2}

Generic Object Exchange Profile (GOEP)^{1,2}

Object Push Profile (OPP)^{1,2}
File Transfer Profile (FTP)
Synchronization Profile (SYNC)

Hard Copy Cable Replacement (HCRP)^{1,2} Personal Area Networking Profile (PAN)^{1,2} Human Interface Device Profile (HID)^{1,2}

FAX Profile (FAX)

Technical Specifications

Basic Imaging Profile (BIP)² Headset Profile (HSP) Hands Free Profile (HFP)

Advanced Audio Distribution Profile (A2DP)

- 1. indicates the profile is supported by Microsoft Windows XP SP2
- 2. indicates the profile is part of Windows Vista
- * Wireless access point and internet service required. Availability of public wireless access points limited.

Intel Dual Band Wireless- Wireless LAN Standards AC 7260 802.11 ac (2x2) WiFi + BT 4.0 combo Adapter*

ndards IEEE 802.11a IEEE 802.11b IEEE 802.11g IEEE 802.11n IEEE 802.11ac

InteroperabilityWi-Fi certifiedFrequency Band802.11b/g/n

• 2.402 - 2.482 GHz

802.11a/n

- 4.9 4.95 GHz (Japan)
- 5.15 5.25 GHz
- 5.25 5.35 GHz\
- 5.47 5.725 GHz
- 5.825 5.850 GHz
- 2.402 2.482 GHz

Data Rates

- 802.11b: 1, 2, 5.5, 11 Mbps
- 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps
- 802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps
- 802.11n: MCS 0 ~ MCS 15, (20MHz, and 40MHz)
- 802.11ac: MCSO ~ MCS9, (1SS, and 2SS) (20MHz, 40MHz, and 80MHz)

Modulation

Direct Sequence Spread Spectrum

BPSK, QPSK, CCK, 16-QAM, 64-QAM, 256-QAM

Security¹

- IEEE and WiFi compliant 64 / 128 bit WEP encryption for a/b/g mode only
- AES-CCMP: 128 bit in hardware
- 802.1x authentication
- WPA, WPA2: 802.1x. WPA-PSK, WPA2-PSK, TKIP, and AES.
- WPA2 certification
- IEEE 802.11i
- Cisco Certified Extensions, all versions through CCX4 and CCX Lite
- WAPI

Network Architecture

Network Architecture



Technical Specifications

Models Models

Roaming IEEE 802.11 compliant roaming between access points

Output Power²
• 2.4G: +13.5dBm minimum

• 5G: +12dBm minimum

 Maximum output power must be able to achieve modular regulatory certification with notebooks that have antennas >20cm from the user and peak gain of +3dBi at 2.4GHz and +4dBi at 5GHz

Power Consumption Transmit: 2.0 W (max)

Receive: 1.6 W (max)

Idle mode (PSP): 250 mW (WLAN Associated)
Idle mode: 100 mW (WLAN unassociated)

Radio disabled: 75 mW

Power Management ACPI and PCI Express compliant power management

802.11 compliant power saving mode

Receiver Sensitivity³ 802.11b:-95 dBm (1 Mbps), -93 dBm (2 Mbps), -91 dBm (5.5 Mbps), -88

dBm (11 Mbps)

802.11a/g:-90 dBm (6 Mbps), -89 dBm (9 Mbps), -87 dBm (12 Mbps), -85 dBm (18 Mbps), -82 dBm (24 Mbps), -79 dBm (36 Mbps), -76 dBm (48

Mbps), -74 dBm (54 Mbps)

802.11n:-69 dBm (72.2 Mbps), -66 dBm (300 Mbps)

Antenna type High efficiency antenna with spatial diversity, mounted in the display

enclosure

Two embedded dual band 2.4/5 GHz antennas are provided to the card to support WLAN MIMO communications and Bluetooth communications

Form Factor PCI-Express Half-MiniCard

Dimensions 0.19 x 1.06 x 1.18 in (4.75 x 26.8 x 30 mm)

Weight 3.1q

Operating Voltage 3.3v +/- 9%

Temperature Operating 14° to 158° F (-10° to 70° C)

Non-operating -40° to 176° F (-40° to 80° C)

Humidity Operating 10% to 90% (non-condensing)

Non-operating 5% to 95% (non-condensing)

Altitude Operating 0 to 10,000 ft (3,048 m)

Non-operating 0 to 50,000 ft (15,240 m)

LED Activity LED Off - Radio OFF; Solid LED On - Radio ON

1. Check latest software/driver release for updates on supported security features.

2. Maximum output power may vary by country according to local regulations.

Receiver sensitivity is measured at a packet error rate of 8% for 802.11b (CKK modulation) and a packet error rate of 10% for 802.11a/g (OFDM modulation).

Bluetooth Specification

V4.0 High Speed, V2.1+EDR, backwards compatible with V1.1, 1.2 and 2.0

Number of Available 79 (1 MHz) available channels



Technical Specifications

Channels

Data Rates and Throughput 3 Mbps data rate; throughput up to 2.17 Mbps

Synchronous Connection Oriented links up to 3, 64 kbps, voice channels

Asynchronous Connection Less links 2178.1 kbps/177.1 kbps asymmetric

or 1306.9 kbps symmetric

Transmit Power -6 dBm to 4 dBm (Bluetooth Class II)

Receiver Sensitivity Better than -80 dBM at 0.1 % raw bit error rate

Power Consumption Peak (Tx) 330 mW

Peak (Rx) 230 mW Sleep <17 mW

Antenna Internally integrated within module

Range Up to 33 ft (10 m)
Electrical Interface USB 2.0 compliant

Microsoft Windows Plug and Play compliant

Bluetooth Software

Supported

Broadcom Bluetooth for Windows Microsoft Windows Bluetooth Software

Link Topology Point to Point, Multipoint Pico Nets up to 7 slaves **Security** Full support of Bluetooth Security Provisions

Power Management Microsoft Windows ACPI, and USB Bus Support

Self-configurable to optimize power conservation in all operating modes,

including Standby, Hold, Park, and Sniff

Certifications All necessary regulatory approvals for supported countries, including:

FCC (47 CFR) Part 15C, Section 15.247 & 15.249

ETS 300 328, ETS 300 826 Low Voltage Directive IEC950

UL, CSA, and CE Mark

Bluetooth Profiles

Supported

Generic Access Profile (GAP)

Service Discovery Application Profile (SDAP)

Serial Port Profile (SPP)

Dial_Up Networking Profile (DUN)
Generic Object Exchange Profile (GOEP)

Object Push Profile (OPP)
File Transfer Profile (FTP)
Synchronization Profile (SYNC)
Hard Copy Cable Replacement (HCRP)
Personal Area Networking Profile (PAN)
Human Interface Device Profile (HID)

Generic Audio/Video Distribution Profile (GAVDP)
Advanced Audio/Video Distribution Profile (A2DP)

FAX Profile (FAX)

Basic Imaging Profile (BIP) Headset Profile (HSP) Hands Free Profile (HFP) Basic Printing Profile (BPP)



Technical Specifications

VDP (Video Distribution Profile)

AVRCP (Audio Video Remote Control Profile)

* Wireless access point and internet service required. Availability of public wireless access points limited. The specifications for the 802.11ac WLAN are draft specifications and are not final. If the final specifications differ from the draft specifications, it may affect the ability of the notebook to communicate with other 802.11ac WLAN devices

Intel Dual Band Wireless- Wireless LAN Standards N 7260NB 802.11 a/b/g/n (2x2) WiFi Adapter*

IEEE 802.11a

IEEE 802.11b IEEE 802.11q IEEE 802.11n

Interoperability Wi-Fi certified

Frequency Band 802.11b/q/n 2.402 - 2.482 GHz

> 802.11a/n 4.9 - 4.95 GHz (Japan)

> > 5.15 - 5.25 GHz 5.25 - 5.35 GHz 5.47 - 5.725 GHz 5.825 - 5.850 GHz

Antenna Structure 2 transmit: 2 receive (2x2)

Data Rates 802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps

802.11b: 1, 2, 5.5, 11 Mbps

802.11q: 6, 9, 12, 18, 24, 36, 48, 54 Mbps

802.11n: card will support rates for NSS=1 and NSS=2 for RX and TX for 20 and 40 MHz channels. Short and long guard interval shall be supported.

Modulation Direct Sequence Spread Spectrum

CCK, BPSK, QPSK, 16-QAM, 64-QAM

Security¹ IEEE and WiFi compliant 64 / 128 bit WEP encryption for a/b/g

mode only

AES-CCMP: 128 bit in hardware

802.1x authentication

WPA, WPA2: 802.1x. WPA-PSK, WPA2-PSK, TKIP, and AES.

WPA2 certification

IEEE 802.11i

Cisco Certified Extensions, all versions through CCX4 and CCX Lite

WAPI

Sub-channels Multinational support with frequency bands and channels compliant to

local regulations.

Network Architecture

Models

Ad-hoc (Peer to Peer)

Infrastructure (Access Point Required)

Roaming IEEE 802.11 compliant roaming between band Access Points

Output Power² 2.4G: +13.5dBm minimum

5G: +12dBm minimum

Transmit: 2.0 Watts **Power Consumption**

Receive: 1.6 Watts

Idle mode³: 250 mW (WLAN Associated)



Technical Specifications

Idle mode: 100 mW (WLAN unassociated)

Radio off: 75 mW

Power Management ACPI and PCI Express compliant power management

802.11 compliant power saving mode

Receiver Sensitivity⁴ 802.11g:-90 dBm (6 Mbps), -89 dBm (9 Mbps), -87 dBm (12 Mbps), -85 dBm

(18 Mbps), -82 dBm (24 Mbps), -79 dBm (36 Mbps), -76 dBm (48 Mbps), -74

dBm (54 Mbps)

802.11b:-95 dBm (1 Mbps), -93 dBm (2 Mbps), -91 dBm (5.5 Mbps), -88

dBm (11 Mbps)

802.11g:-90 dBm (6 Mbps), -89 dBm (9 Mbps), -87 dBm (12 Mbps), -85 dBm (18 Mbps), -82 dBm (24 Mbps), -79 dBm (36 Mbps), -76 dBm (48 Mbps), -74

dBm (54 Mbps)

802.11n:-69 dBm (150 Mbps), -66 dBm (300 Mbps)

Antenna Connections 2 U.FL type connectors (output impedance of 50 ± 2 ohms)

Form Factor PCI-Express Half-MiniCard

Dimensions 0.12 x 1.06 x 1.18 in (3.1 x 26.8 x 30.0 mm)

Weight 3.1g

Operating Voltage 3.3v +/- 9%

Temperature Operating 14° to 158° F (-10° to 70° C)

Non-operating -40° to 176° F (-40° to 80° C)

Humidity Operating 10% to 90% (non-condensing)

Non-operating 5% to 95% (non-condensing)

Altitude Operating 0 to 10,000 ft (3,048 m)

Non-operating 0 to 50,000 ft (15,240 m)

LED Activity LED Amber - Radio OFF; Solid LED On - Radio ON

- 1. Check latest software/driver release for updates on supported security features.
- 2. Maximum output power may vary by country according to local regulations.
- 3. In Power Save Polling mode and on battery power.
- 4. Receiver sensitivity is measured at a packet error rate of 8% for 802.11b (CCK modulation) and a packet error rate of 10% for 802.11a/g (OFDM modulation).
- 5. WLAN supplier's client utility is required for Cisco Compatible Extensions support with Microsoft Windows XP. WLAN may also be compatible with certain third-party software supplicants. WLAN supplier IHV extensions required for Cisco Compatible Extensions support for Microsoft Windows Vista.
- * Wireless access point and internet service required. Availability of public wireless access points limited.

AUDIO/MULTIMEDIA

Audio DTS Studio Sound (Windows OS only)

Hardware Implementation IDT 92HD91 High Definition CODEC



Technical Specifications

Function Key Volume

Controls

Volume up, volume down, and mute

Mute Buttons

Playback and Record mute buttons with LED indicator

Full Duplex Yes Microphone In Stereo Headphone/Line Out Stereo

Integrated Microphone Yes, dual digital microphone array

Audio Output Quality

Frequency Response 20 Hz – 20 kHz

Signal to Noise Ratio >85 dB **Total Harmonic** 0.01%

Distortion

Noise Floor -110 dB **Play/Record Sampling** 8 kHz - 48kHz

Rate(s)

DAC 16, 20 or 24-bit ADC 16 or 20-bit

Integrated Stereo Speakers

Power Rating 1 Watt **Impedance** 8 Ohms

POWER

HP 45W Slim Smart AC Adapter

Dimensions (H x W x D)

9.60 x 4.95 x 2.24 cm

Input

90 to 265 VAC

Input Efficiency

87% min at 115 VAC

Input frequency range

47 to 63 Hz

Input AC current

1.4 A at 90 VAC and maximum load

Output

Output power 45W

DC output 19.5V

Hold-up time 5 msec at 115 VAC input

Output current limit <8A, Over voltage protection- 29V max

automatic shutdown

Connector 3 pin/grounded, mates with interchangeable cords **Environmental Design**

Operating 32° to 95° F (0° to 35° C)

temperature

Non-operating (storage) -4° to 121° F (-20° to 85° C)

temperature

Altitude 0 to 16,405 ft (0 to 5,000 m)

Humidity 0% to 95% **Storage Humidity** 0% to 95%



Technical Specifications

EMI and Safety Certifications

CE Mark - full compliance with LVD and EMC directives; Worldwide safety standards - IEC60950, EN60950, UL60950, Class1, SELV; Agency approvals - C-UL-US, NORDICS, DENAN, EN55022 Class B, FCC Class B, CISPR22 Class B, CCC, NOM-1 NYCE; Reliability - failure rate of less than 0.1% annually within the first three years of operation.

HP 6-cell (44 WHr) Polymer Primary battery Weight (max)

Dimensions $(H \times W \times L)$

1.11 x 28.1 x 10.3 cm

3.10q

Cells/Type

6-cell Polymer

Energy

Voltage 11.10 4.0Ah Amp-hour capacity

Watt-hour capacity

44Wh

Temperature

Operating (Charging) Operating (Discharging)

32° to 113° F (0° to 45° C) 14° to 122° F(-10° to 50° C)

Non-operating

-4° to 122° F (-20° to 50° C)

Battery Re-Charge Time

System in OFF or

2.5 hours

Standby Mode

System ON

No

No

3-5 hours

Fuel Gauge LED Optional Travel Battery

Available

ENVIRONMENTAL

Eco-Label Certifications

This product has received or is in the process of being certified to the following approvals and may be labeled with one or more of these marks:

- IT ECO declaration
- **US ENERGY STAR®**
- EPEAT Gold registered in the United States. See http://www.epeat.net for registration status in your country.

System Configuration

The configuration used for the Energy Consumption and Declared Noise Emissions data for the Commercial Notebook model is based on a "Typically Configured Notebook"

Energy Consumption (in accordance with US **ENERGY STAR® test** n

method)	115 VAC	230 VAC	100 VAC
Normal Operation (Short idle)	4.65 W	4.99 W	4.84 W
Normal Operation (Long idle)	2.90 W	2.84 W	2.70 W
Sleep	0.66 W	0.69 W	0.66 W
Off	0.50 W	0.54 W	0.49 W

Note:



Technical Specifications

Energy efficiency data listed is for an ENERGY STAR® compliant product if offered within the model family. HP computers marked with the ENERGY STAR® Logo are compliant with the applicable U.S. Environmental Protection Agency (EPA) ENERGY STAR® specifications for computers. If a model family does not offer ENERGY STAR® compliant configurations, then energy efficiency data listed is for a typically configured PC featuring a hard disk drive, a high efficiency power supply, and a Microsoft Windows® operating system.

Heat Dissipation*	115 VAC	230 VAC	100 VAC
Normal Operation (Short idle)	16 BTU/hr	17 BTU/hr	17 BTU/hr
Normal Operation (Long idle)	10 BTU/hr	10 BTU/hr	9 BTU/hr
Sleep	2 BTU/hr	2 BTU/hr	2 BTU/hr
Off	2 BTU/hr	2 BTU/hr	2 BTU/hr

^{*} Heat dissipation is calculated based on the measured watts, assuming the service level is attained for one hour.

Declared Noise Emissions	Sound Power	Sound Pressure
(in accordance with	(LWAd, bels)	(LpAm, decibels)
ISO 7779 and ISO 9296)		
Typically Configured - Idle	2.9	26
Fixed Disk - Random writes	2.9	26

Batteries

This battery(s) in this product comply with EU Directive 2006/66/EC

Batteries used in the product do not contain:

Mercury greater the 1ppm by weight Cadmium greater than 20ppm by weight

Battery size: CR2032 (coin cell)

Battery type: Lithium

Additional information

- This product is in compliance with the Restrictions of Hazardous Substances (RoHS) directive -2011/65/EC.
- This HP product is designed to comply with the Waste Electrical and Electronic Equipment (WEEE) Directive 2002/96/EC.
- This product is in compliance with California Proposition 65 (State of California; Safe Drinking Water and Toxic Enforcement Act of 1986).
- This product is in compliance with the IEEE 1680 (EPEAT) standard at the Gold level, see www.epeat.net
- Plastics parts weighing over 25 grams used in the product are marked per ISO11469 and ISO1043.
- This product contains 17.6 % post-consumer recycled plastic (by wt.)
- This product is 92.4 % recycle-able when properly disposed of at end of life.

Packaging Materials

External:



Technical Specifications

- o PAPER/Corrugated 340 g
- Internal:
 - PLASTIC/EPE-Expanded Polyethylene 80 g
 - PLASTIC/Polyethylene low density 25 g
 - o OTHER/OTHER 1450 q
 - o PLASTIC/PET 500 g
- The plastic packaging material contains at least 30 % recycled content.
- The corrugated paper packaging materials contains at least 30% recycled content.

Material Usage

This product does not contain any of the following substances in excess of regulatory limits (refer to the HP General Specification for the Environment at

http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/gse.pdf):

- Asbestos
- Certain Azo Colorants
- Certain Brominated Flame Retardants may not be used as flame retardants in plastics
- Cadmium
- Chlorinated Hydrocarbons
- Chlorinated Paraffins
- Formaldehyde
- Halogenated Diphenyl Methanes
- Lead carbonates and sulfates
- Lead and Lead compounds
- Mercuric Oxide Batteries
- Nickel finishes must not be used on the external surface designed to be frequently handled or carried by the user.
- Ozone Depleting Substances
- Polybrominated Biphenyls (PBBs)
- Polybrominated Biphenyl Ethers (PBBEs)
- Polybrominated Biphenyl Oxides (PBBOs)
- Polychlorinated Biphenyl (PCB)
- Polychlorinated Terphenyls (PCT)
- Polyvinyl Chloride (PVC) except for wires and cables, and certain retail packaging has been voluntarily removed from most applications.
- Radioactive Substances
- Tributyl Tin (TBT), Triphenyl Tin (TPT), Tributyl Tin Oxide (TBTO)

Packaging Usage

HP follows these guidelines to decrease the environmental impact of product packaging:

- Eliminate the use of heavy metals such as lead, chromium, mercury and cadmium in packaging materials.
- Eliminate the use of ozone-depleting substances (ODS) in packaging materials.
- Design packaging materials for ease of disassembly.
- Maximize the use of post-consumer recycled content materials in packaging materials.
- Use readily recyclable packaging materials such as paper and corrugated materials.
- Reduce size and weight of packages to improve transportation fuel efficiency.



Technical Specifications

Plastic packaging materials are marked according to ISO 11469 and DIN 6120 standards.

and Recycling

End-of-life Management Hewlett-Packard offers end-of-life HP product return and recycling programs in many geographic areas. To recycle your product, please go to: http://www.hp.com/go/reuse-recycle or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner.

> The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard web site at: http://www.hp.com/go/recyclers. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment.

Hewlett-Packard Corporate Environmental

Information

For more information about HP's commitment to the environment:

Global Citizenship Report

http://www.hp.com/hpinfo/globalcitizenship/gcreport/index.html

Eco-label certifications

http://www8.hp.com/us/en/hp-information/environment/ecolabels.html

ISO 14001 certificates:

http://www.hp.com/hpinfo/qlobalcitizenship/environment/pdf/

PC GBU Product Design ISO 14K Certificate.pdf

http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/cert.pdf

COUNTRY OF ORIGIN

China



Options and Accessories (sold separately and availability may vary by country)

Туре	Description	Part #
Memory	HP 2GB DDR3 1600 PC3-12800 SODIMM	H2P63AA#xxx
	HP 4GB DDR3 1600 PC3-12800 SODIMM	H2P64AA#xxx
	HP 8GB DDR3 1600 PC3-12800 SODIMM	H2P65AA#xxx
Cases	HP Slim Ultrabook Messenger (up to 15.6" x .88"/22/5mm)	F3W14AA
	HP Slim Ultrabook Top Load (up to 15.6" x .88"/22/5mm)	F3W15AA
	HP Slim Ultrabook Backpack (up to 15.6" x .88"/22/5mm)	F3W16AA
	HP Essential Top Load Case (up to 15.6")	H2W17AA#xxx
	HP Essential Backpack (up to 15.6")	H1D24AA
	HP Essential Messenger Case (up to 17.3")	H1D25AA
	HP Professional Series Carrying Case (up to 15.6")	H4J90AA
	HP Professional Series Carrying Case TSA (up to 15.6")	H4J92AA
	HP Professional Series Backpack (up to 15.6")	H4J93AA
	HP Professional Leather Case (up to 17.3")	H4J94AA
	HP Business Slim Top Load (up to 14.1" x .75" thick)	H2T13AA
Docking	HP 2013 UltraSlim Docking Station	D9Y32AA#xxx
	HP Dual Hinge II Notebook Stand	E8F99AA#xxx
	HP Display and Notebook Stand II	E8G00AA#xxx
	HP Adjustable Dual Monitor Stand	AW664AA#xxx
	HP Adjustable Display Stand	AW663AA#xxx
	HP LCD Monitor Stand	QM196AA
	HP USB 2.0 Port Replicator	H1L07AA#xxx
	HP USB 3.0 Port Replicator	H1L08AA#xxx
Input/Output - Mice	HP USB Optical Travel mouse	RH304AA
	HP Wireless Mobile Mouse	H2L63AA
	HP USB Essential Keyboard/Mouse	H2S75AA
	HP X6000 Mouse	H2L62AA#XXX
	HP 3-button USB Laser Mouse	H4B81AA
	HP X4000b Bluetooth Mouse	H3T50AA#xxx
Input/Output - Keyboar	rd HP Stylish Wireless KB/Mouse	H4B79AA
	HP Stylish USB KB/Mouse	H4B80AA
	HP Slim BT Keyboard US	H4Q44AA#ABA
Input/Output - Other	HP USB Ethernet Adapter	XZ613AA#ABA
	USB Graphics Adapter (DBU PL)	NL571AA



Options and Accessories (sold separately and availability may vary by country)

Adapters	HP DP to HDMI 1.4 Adapter	F3W43AA
	90W Slim Combo Adapter	H4A41AA#xxx
	90W w/USB Universal Adapter	H4A43AA#ABA
	90W Smart AC/Auto/Air Combo Adapter	AJ652AA#xxx
	90W Smart Auto/Truck Adapter	ED493AA
	HP Smart 65W Travel AC Adapter	AU155AA#xxx
	HP 65W Slim Adapter	AX727AA#xxx
	65W Smart AC Adapter	ED494AA#xxx
	90W Smart AC Adapter	ED495AA#xxx
	90W Slim Adapter	BT796AA#xxx
Primary Storage - SSD	HP 180GB M2 Solid State Drive	J2V73AA
	HP 256 GB M2 Solid State Drive	J2V74AA
Storage - External Storage	HP External USB Optical Drive	F2B56AA
Platform Battery	HP OD06XL Long Life Notebook Battery	H6L25AA
Health and Education	20 Notebook Managed Charging Cart	QL489AA#xxx
	20 Notebook Charging Cart	QL488AA
	30 Notebook Managed Charging Cart	QL490AA
	30 Notebook Charging Cart	H4F31AA#ABA
Security	HP Docking Station Cable Lock	AU656AA#xxx
	HP UltraSlim Keyed Cable Lock	H4D73AA
Monitors	HP U160 15.6-inch LED Backlit Monitor	C4M77AA or D4T56AA#xxx (check region for which sku is available)
	HP EliteDisplay E271i 27-inch IPS LED Monitor	D7Z72AA/A8/AS/AT
	HP EliteDisplay E231 23-inch LED Monitor	C9V75AA/A8/AS/AT
	HP EliteDisplay E201 20-inch LED Monitor	C9V73AA/A8/A3/A1
	HP ProDisplay P221 21.5" LED Monitor	C9E49AA/A8/AS/AT
	ווו דוסטוסףומץ דבב דב ז.ס בבט ויוטווונטו	C3E43AA/AO/A3/AT

 $Copyright @ 2013 \ Hewlett-Packard \ Development \ Company, L.P.$

HP ProDisplay P201 20" LED Monitor

All rights reserved. Intel and Core are registered trademarks or trademarks of Intel Corporation in the U.S. and/or other countries. Bluetooth is a trademark owned by its proprietor and used by Hewlett-Packard Company under license. Microsoft and Windows



C9F26AA/A8/AS/AT

Options and Accessories (sold separately and availability may vary by country)

are U.S. registered trademarks of Microsoft Corporation. Adobe is a trademark of Adobe Systems Incorporated. ENERGY STAR is a registered mark owned by the U.S. government.

The information contained herein is subject to change without notice and is provided "as is" without warranty of any kind. The warranties for HP products are set forth in the express limited warranty statements accompanying such products. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

